Title (en)

CERAMIC MEMBRANES FOR CATALYTIC MEMBRANE REACTORS WITH HIGH IONIC CONDUCTIVITIES AND LOW EXPANSION PROPERTIES

Title (de)

KERAMISCHE MEMBRANEN FÜR KATALYTISCHE MEMBRANREAKTOREN MIT HOHEN IONISCHEN LEITFÄHIGKEITEN UND NIEDRIGEN AUSDEHNUNGSEIGENSCHAFTEN

Title (fr)

MEMBRANES CERAMIQUES POUR REACTEURS A MEMBRANE CATALYTIQUE PRESENTANT DES CONDUCTIVITES IONIQUES ELEVEES ET DES PROPRIETES D'EXPANSION BASSES

Publication

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Application

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Abstract (en)

[origin: US6146549A] Ceramics of the composition: LnxSr2-x-yCayBzM2-zO5+ delta where Ln is an element selected from the fblock lanthanide elements and yttrium or mixtures thereof; B is an element selected from Al, Ga, In or mixtures thereof; M is a d-block transition element of mixtures thereof; 0.01</=x</=1.0; 0.01</=y</=0.7; 0.01</=z</=1.0 and delta is a number that varies to maintain charge neutrality are provided. These ceramics are useful in ceramic membranes and exhibit high ionic conductivity, high chemical stability under catalytic membrane reactor conditions and low coefficients of expansion. The materials of the invention are particularly useful in producing synthesis gas.

IPC 1-7

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IPC 8 full level

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